COMSAT
Mobile Communications

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EX PARTE OR LATE FILED

June 1, 1995



By Hand

William F. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: Ex Parte Submission in ET Docket No. 95-18 and IC Docket No. 94-31

Dear Mr. Caton:

On Wednesday, May 31, 1995, COMSAT Corporation ("COMSAT") conducted a briefing for Cecily Holiday and Damon Ladson of the International Bureau ("Bureau"). The primary purpose of the briefing was to discuss issues raised in COMSAT's Comments filed May 5, 1995, in ET Docket No. 95-18, regarding the domestic allocation of spectrum at 2 GHz for mobile satellite services ("MSS). COMSAT also discussed the Commission's proposed 2 GHz band extensions for global MSS which the Bureau is considering in IC Docket No. 94-31 as part of its preparation for WRC-95. Attending the briefing from COMSAT were John S. Hannon, Jeffrey Binckes, Raymond Crowell and the undersigned. During the briefing COMSAT presented the Bureau staff with a copy of the attached summary of COMSAT's alternative plan for the allocation of spectrum at 2 GHz for global mobile satellite services.

Respectfully Submitted,

Nancy J. Thompson

Nancy J. Thompson

Attachment

cc: Cecily Holiday
Damon Ladson

**COMSAT Presentation to FCC -- May 31, 1995**

## COMSAT'S ALTERNATIVE PLAN FOR MSS ALLOCATION AT 2 GHZ:

**Phase I (1995-1998): All steps would proceed simultaneously with Step 5 completed by year-end 1995.**

Step 1 Determine, based on computer simulations conducted by COMSAT LABS, that MSS and the terrestrial fixed services can share the WARC-92 MSS downlink band at 2160-2200 MHz. Terrestrial fixed operations, thus, would not need to be relocated to another part of the spectrum.

Step 2 Retune the BAS center frequencies and corresponding bandwidth of each of the seven BAS channels in the 1990-2110 MHz band. The result would be seven analog FM/TV BAS transmissions, 16 MHz each, in the 1998-2110 MHz band. This simple retuning would free 8 MHz of bandwidth at 1990-1998 MHz for global MSS use beginning in 1998. BAS operations would not have to be relocated to another part of the spectrum and there would be only minimal impact on BAS operational quality. BAS retuning costs are estimated at $35 million.

Step 3 Develop U.S. positions for WRC-95 which would ensure that at least a portion of the WARC-92 allocated spectrum for MSS (e.g. 1990-2010 for MSS uplink and 2170-2200 for MSS downlink) are available on a global basis by year 2000.

Step 4 Develop U.S. proposals for WRC-95 to begin the necessary studies within the ITU-R to determine the feasibility and arrangements to allocate the extended bands at 2010-2025 MHz and 2165-2170 MHz to global MSS at WRC-97, so that this additional MSS spectrum may become available in the year 2005.

Step 5 Allocate the bands 1990-2010 MHz and 2180-2200 MHz in the U.S. for MSS global services to become available for use in 1998. Entertain applications as soon as possible for use of this spectrum.

**Phase II (1996-2005)**:

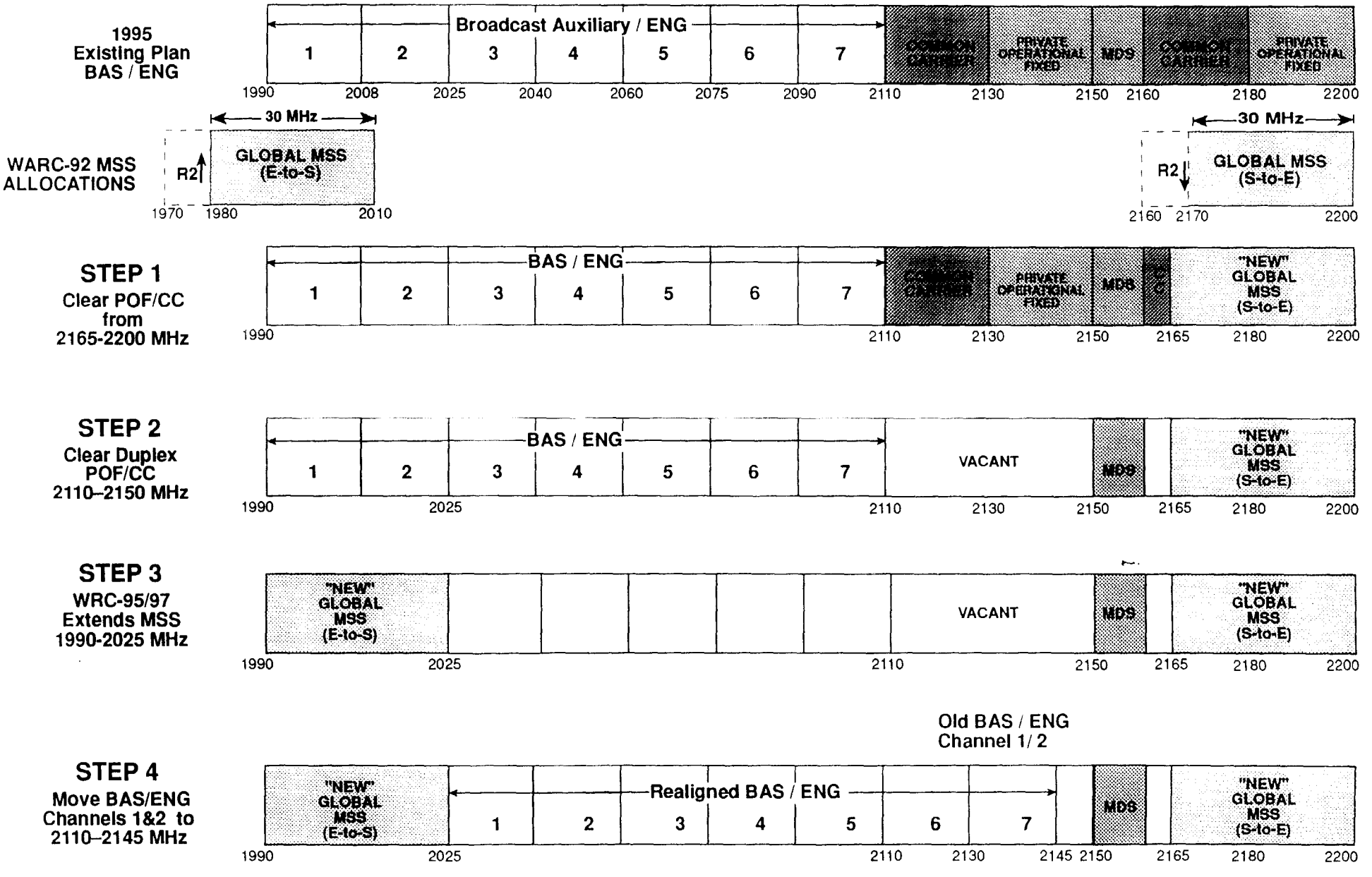
Step 1 Based upon the decisions at WRC-95, participate in studies within the ITU-R to determine the feasibility and arrangements to allocate the extended bands 2010-2025 MHz and 2165-2170 MHz to global MSS at WRC-97. Develop U.S. proposals to allocate additional spectrum to global MSS at WRC-97 consistent with these efforts.

Step 2 Assuming that the band 2010-2025 MHz is allocated for global MSS uplinks, require BAS to commence the transition to digital transmission to be completed by the year 2005 when the new global band for MSS becomes available. Digital operations will increase spectrum efficiency and enable BAS to operate effectively in a reduced BAS band at 2025-2110 MHz (e.g. 13 MHz in the first BAS channel and 12 MHz in the other six BAS channels).

Step 3 Allocate within the U.S., following WRC-97, the new MSS global bands allocated at WRC-97.

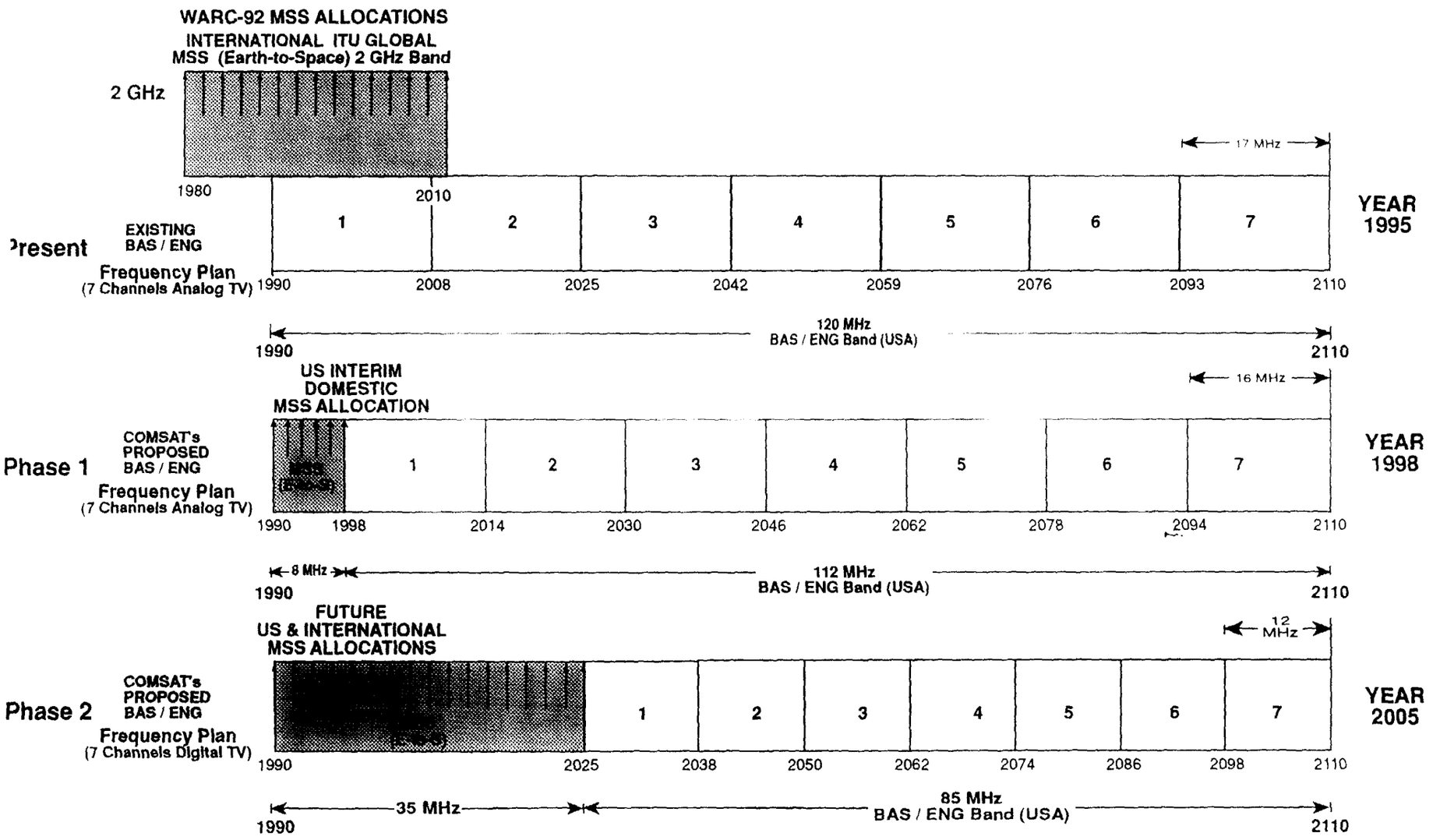
# Figure 1

# FCC's Proposed Re-allocation of 2 GHz Bands



# Figure 2

# COMSAT's Proposed Rechannelization of the BAS 2 GHz Band

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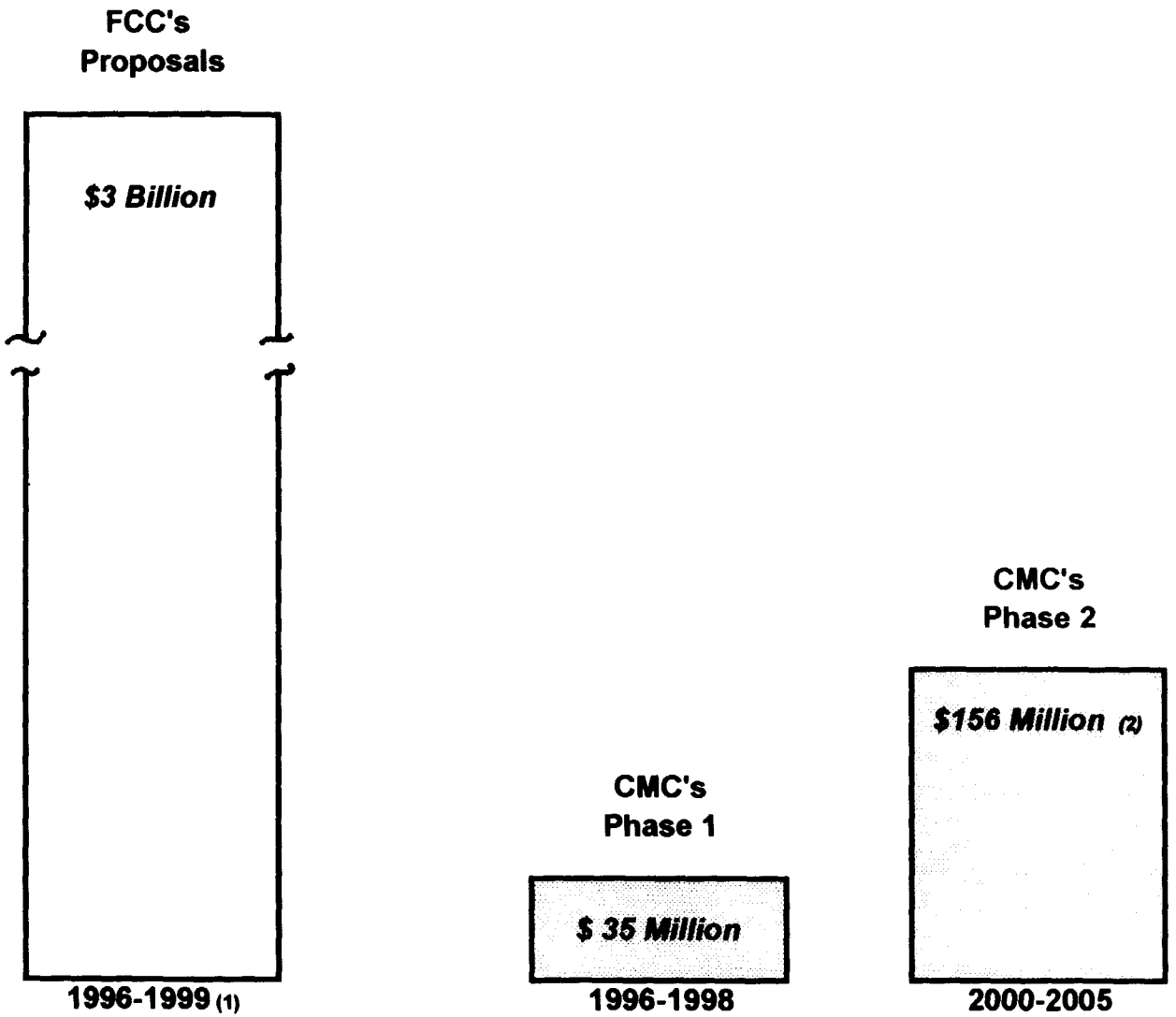
# Cost Comparison of FCC's Proposals vs. CMC's Proposal




(1) Assume three year negotiation period
(2) Assume a four-fold reduction in cost by 2000 for a digital TV codec and modem unit